

S/078/60/005/007/030/043/XX
B004/B060AUTHORS: Fedorov, I. A., Balakayeva, T. A.

TITLE: Compounds of Cadmium With Glycocoll

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 7,
pp. 1522-1532

TEXT: In their study of glycocoll - cadmium compounds, the authors established two types. In the first one, glycocoll (G1H) occupies one coordination site (binding to Cd by means of nitrogen) to form salts which readily dissociate in water. The second type consists of cyclic chelates, in which G1H is bound to Cd both with nitrogen and with oxygen, and occupies two coordination sites. The article under consideration is concerned only with the study of compounds belonging to the former type: $\text{Cd}(\text{G1H})\text{X}_2$. They were obtained by reaction of G1H with aqueous solutions of Cd salts in neutral or poorly acid medium. The number of G1H molecules entering into the compound depends on the anion X. Thus, only one chloride compound, $\text{Cd}(\text{G1H})_2\text{Cl}_2$ was obtained, as against three bromides:

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$\text{Cd}(\text{GlH})_2\text{Br}_2$, $\text{Cd}(\text{GlH})_3\text{Br}_2$, and $\text{Cd}(\text{GlH})_8\text{Br}_2$. The latter was precipitated after separation of the Di-GlH compound by addition of acetone to the filtrate. The iodine compounds could not be synthesized. $\text{Cd}(\text{GlH})\text{SO}_4$ and $\text{Cd}(\text{GlH})_3\text{SO}_4$ were obtained with CdSO_4 . All the compounds are well soluble in water. The determination of their molecular electrical conductivity revealed that all halogen compounds are three-ion electrolytes, while sulfate compounds are two-ion ones. The Van t'Hoff number i is about equal to the number of components forming the compound. When the acid-reacting (pH about 5) aqueous solutions of these compounds are titrated with alkali, less alkali is used than would correspond to the glycocoll content, because the ring is closed, and compounds of the type $\text{Cd}(\text{Gl})_2\text{MeX}$ are formed (Me = Na, K, NH_4). GlH can be displaced from the complex by ethylene diamine and aniline. In thiourea (thio), displacement depends on the anion of the compounds. In the case of chlorides, GlH is completely dislocated by thio, but is displaced only partially from sulfates to form $\text{CdSO}_4\text{Thio6GlH}$ and $2\text{CdSO}_4\text{Thio26GlH}$. The authors determined density and

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molecular volume of some salts (Table 3). The volume of GlH-Cd compounds is 10-12% smaller than the total volume of the components. The thermo-grams taken by L. M. Zaytsev of $\text{Cd}(\text{GlH})_2\text{Cl}_2$, $\text{Cd}(\text{GlH})_2\text{Br}_2$, and $\text{Cd}(\text{GlH})\text{SO}_4$ (Figs. 1-3, Tables 6-8) revealed that the two halogen compounds melt at 210-240°C without a change in composition, and that decomposition sets in only at 280-300°C. In the sulfate compound, decomposition without melting sets in only at 350°C. With NH_3 , the compounds react under ring closure and the formation of complexes. $\text{Cd}(\text{Gl})_2\text{NH}_4\text{Cl} \cdot \text{H}_2\text{O}$ and $\text{Cd}(\text{Gl})_2\text{NH}_4\text{Br} \cdot \text{H}_2\text{O}$ were synthesized. It may be seen from the conductivity and the cryoscopic data (Tables 3,4) that these compounds dissociate according to the equation: $\text{Cd}(\text{Gl})_2\text{NH}_4\text{Br} \rightleftharpoons \text{Cd}(\text{Gl})_2 + \text{NH}_4^+ + \text{Br}^-$. The displacing action of ethylene diamine (En) was proved by synthesis of the $\text{Cd}(\text{En})_2\text{I}_2$ compound. The reaction with pyridine (Py) was studied in two ways: 1) reaction of GlH with CdPyCl_2 , and 2) reaction of Py with $\text{Cd}(\text{GlH})_2\text{Cl}_2$. CdPy_2Cl_2 and $\text{Cd}(\text{GlH})_2\text{Cl}_2$ were obtained in both cases. The authors assume an unstable $\text{CdPy}(\text{GlH})\text{Cl}_2$

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compound, decomposing according to the equation:
 $2\text{CdPy}(\text{GlH})\text{Cl}_2 \longrightarrow \text{CdPy}_2\text{Cl}_2 + \text{Cd}(\text{GlH})_2\text{Cl}_2$. A conversion of CdPyCl_2 to
 CdPy_2Cl_2 does not take place in the absence of GlH. The thermographic
 curves were plotted by means of N. S. Kurnakov's pyrometer. There are
 3 figures, 8 tables, and 10 references: 6 Soviet, 1 British, and 3 German. ✓

SUBMITTED: March 20, 1959

Card 4/4

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3004/3060

53700

1282, 1316, 2203

AUTHORS:

Fedorov, I. A., Balakayeva, T. A.

TITLE:

Chelates of Cadmium With Glycocoll

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 7,
pp. 1533-1543

TEXT: A previous article (Ref. 1) gave a description of compounds of the type $\text{Cd}(\text{GlH})_n\text{X}_2$ ($\text{GlH} = \text{CH}_2\text{NH}_2\text{COOH}$, $\text{X} = \text{anion}$), which completely decompose into their components in water. The present article deals with compounds in which the glycocoll cyclizes and is bound to Cd with its N and one O of the carboxyl group to occupy two coordination sites: $\text{Cd}(\text{Gl})_2\text{H}_2\text{O}$ and $\text{Cd}(\text{Gl})_2\text{H}_2\text{O}$. The bond between Gl and Cd is stronger here, so that only ethylene diamine is able to displace both glycocoll radicals (Gl) from the complex, while the mixed compound $\text{Cd}(\text{Gl})(\text{CNS})\cdot\text{H}_2\text{O}$ is formed with CNS^- . Thiourea (thio) is added under formation of $2\text{Cd}(\text{Gl})_2\text{Thio}\cdot 2\text{H}_2\text{O}$. The aqueous

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Cd is placed in the center of the tetrahedron. In a similar way as thio-urea, also NaCl, NH_4Cl , KCl, CaCl_2 , and guanidine chloride are added to $\text{Cd}(\text{Gl})_2$ under the action of the respective salts upon $\text{Cd}(\text{Gl})_2$. The following compounds were synthesized: $\text{Cd}(\text{Gl})_2 \cdot \text{NH}_4\text{Cl}$; $\text{Cd}(\text{Gl})_2 \cdot \text{NH}_4\text{Br}$, $\text{Cd}(\text{Gl})_2 \cdot \text{NaCl} \cdot 2.5\text{H}_2\text{O}$, $\text{Cd}(\text{Gl})_2 \cdot \text{GunHCl}$

(Gun = $\begin{array}{c} \text{NH}_2 \\ \diagup \\ \text{C}=\text{NH} \\ \diagdown \\ \text{NH}_2 \end{array}$), $\text{Cd}(\text{Gl})_2 \cdot \text{KCl} \cdot \text{H}_2\text{O}$, $\text{Cd}(\text{Gl})_2 \cdot \text{BaCl}_2 \cdot 2\text{H}_2\text{O}$, $\text{Cd}(\text{Gl})_2 \cdot \text{CaCl}_2 \cdot 3\text{H}_2\text{O}$, and

$\text{Cd}(\text{GlH})_2 \cdot 2\text{K}_2\text{SO}_4 \cdot 1\frac{1}{2}\text{H}_2\text{O}$. The molecular conductivity of these compounds corresponds to that of the halogen compounds: $\text{Cd}(\text{Gl})_2 \cdot \text{Me}^{\text{I}}\text{X}$ has two ions, $\text{Cd}(\text{Gl})_2 \cdot \text{Me}^{\text{II}}\text{X}_2$ has three. The thermograms taken by L. M. Zaytsev showed that decomposition sets in already at 200-220°C. It follows that these addition products are real compounds, not merely mixtures. After discussing their structure, the authors reach the conclusion (basing on the Van t'Hoff

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number) that all added molecules have to be situated in the outer sphere. Analytical and physical data are given. There are 4 figures, 4 tables, and 2 Soviet references.

SUBMITTED: March 20, 1959

X

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22485

S/186/61/003/003/003/018

E071/E435

21.3200

AUTHORS: Shevchenko, V.B., Fedorov, I.A., and Smelov, V.S.

TITLE: The Influence of Temperature on Extraction With Mixed Solvents of Uranyl Nitrate and Tetravalent Plutonium

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.3, pp.256-260

TEXT: The influence of temperature on the extraction of uranyl nitrate and tetravalent plutonium from 2M nitric acid solution with a mixture of diisoamyl ester of phosphoric acid (DAPh) and tertiary butyl ester of phosphoric acid (TBPh) in xylene was investigated. In the case of extraction of uranyl nitrate, the concentration of DAPh in the mixture was $1.9 \times 10^{-3} M$ and that of TBPh was $6.3 \times 10^{-3} M$; and for extraction of $Pu^{(IV)}$, $2.1 \times 10^{-4} M$ and $2.1 \times 10^{-2} M$ respectively. The concentration of uranyl nitrate in the starting solution was $3.15 \times 10^{-4} M$, of $Pu^{(IV)}$, $1.05 \times 10^{-4} M$. The concentration of nitric acid in starting solutions was 2M. The limits of concentrations of TBPh and DAPh in the organic solvent and of nitric acid in water were chosen in order to obtain a maximum synergetic effect. The extraction experiments were done in thermostatically controlled ($\pm 0.1^\circ C$) separating funnels with Card 1/4 }

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The Influence of Temperature ...

10 ml starting volumes of phases and within the temperature range of 10 to 60°C. Uranium and plutonium were determined in both phases by the radiometric method. The valency state of plutonium was spectrophotometrically controlled. The coefficient of distribution α was determined as the ratio of analysed concentrations of the substance investigated in the organic and aqueous phases. The synergetic effect of the mixture was defined as a ratio of the coefficient of distribution on extraction with a mixture to the sum of coefficients of distribution of the substance investigated on extraction with each individual solvent. The temperature dependence of the distribution of uranyl nitrate and tetravalent plutonium on extraction with the mixture of DAPh and TBPh (curve 1), with DAPh (curve 2) and TBPh (curve 3) is shown in Fig.1 (for uranyl nitrate) and Fig.2 (for tetravalent plutonium). Using determined values of coefficients of distribution on extraction with individual and mixed solvents, the equilibrium constants for the reaction of formation of respective mixed complexes were determined. On the basis of the experimental results obtained, it is concluded that the extractability of uranyl nitrate and plutonium (IV) with a mixture

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EO71/E435

The Influence of Temperature ...

of DAPh and TBPh in xylene decrease with increasing temperature from 10 to 60°C. With increasing temperature from 10 to 60°C, the equilibrium constant for the formation of mixed complex $UO_2[(C_5H_{11}O)_2POO]_2TBPh$ decreased from 2.20×10^4 to 0.87×10^4 , while the constant for the mixed complex $PU[(C_5H_{11}O)_2POO]_4TBPh$ changes only a little. There are 2 figures, 2 tables and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc. The three references to English language publications read as follows: H.Irving, D.Eddington, Proc.Chem.Soc., 11, 360 (1959); T.Sato, Gall.Bull.Inst.Nucl.Sci., 7, 43 (1957); Z.Disdar, J.Inorg.Nucl.Chem., 6, 334 (1958).

SUBMITTED: May 31, 1960

Card 3/4

GOLOVNYA, Valentina Arkad'yevna; FEDOROV, Igor' Alekseyevich; CHERNYAYEV,
I.I., akademik, otv. red.; DRAGUNOV, E.S., red. izd-va; YEGOROVA,
N.F., tekhn. red.

[Basic principles of the chemistry of complex compounds] Osnovnye
ponyatiia khimii kompleksnykh soedinenii. Moskva, Izd-vo Akad. nauk
SSSR, 1961. 133 p. (MIRA 14:11)

(Complex compounds)

ZVYAGINTSEV, O.Ye.; FEDOROV, I.A.

In memory of N.K.Pshenitsyn; obituary. Zhur.neorg.khim. no.9:
1981-1989 S. '61. (MIRA 14:9)
(Pshenitsyn, Nikolai Konstantinovich, 1891-1961)

FEDOROV, I.A.

Determining stresses in rods of a flat statically
determinate truss. Sbor. nauch. trud. KGRI 18:50-52 '62.

Conditions for minimum size frames with specified strains.
Sbor. nauch. trud. KGRI 18:75-88 '62. (MIRA 17:5)

FEDOROV, I.A.; BALAKAYEVA, T.A.

Compounds of cadmium with alanine and norleucine. Zhur.neorg.
khim. 7 no.2:312-319 F '62. (MIRA 15:3)
(Cadmium compounds) (Alanine) (Norleucine)

FEDOROV, I.A.; BALAKAYEVA, T.A.

Compounds of cadmium with glutamic acid. Zhur.neorg.khim. 7
no.2:320-324 F '62. (MIRA 15:3)
(Cadmium compounds) (Glutamic acid)

AVTOKRATOVA, T.D.; ANDRIANOVA, O.N.; BABAYEVA, A.V.; BELOVA, V.I.;
GOLOVNYA, V.A.; DERBISHER, G.V.; MAYOROVA, A.G.; MURAVEYSKAYA,
G.S.; NAZAROVA, L.A.; NOVOZHENYUK, Z.M.; ORLOVA, V.S.; USHAKOVA,
N.I.; FEDOROV, I.A.; FILIMONOVA, V.N.; SHENDERETSKAYA, Ye.V.;
SHUBOCHKINA, Ye.F.; KHANANOVA, E.Ya.; CHERNYAYEV, I.I., akademik,
otv. red.

[Synthesis of complex compounds of platinum group metals; a
handbook] Sintez kompleksnykh soedinenii metallov platinovoi
gruppy; spravochnik. Moskva, Izd-vo "Nauka," 1964. 338 p.
(MIRA 17:5)

1. Akademiya nauk SSSR. Institut obshchey i neorganicheskoy
khimii. 2. Institut obshchey i neorganicheskoy khimii AN SSSR
(for all except Chernyayev).

POZHARSKIY, B.G.; FEDOROV, I.A.; SHEVCHENKO, V.B.

Effect of temperature on the complex formation of plutonium (IV)
in nitric acid solutions. Zhur. neorg. khim. 9 no.2:279-282 F'64.
(MIRA 17:2)

FEDOROV, I.A.; BALAKAYEVA, T.A.

Scandium oxalate-carbonate compounds. Zhur. naorg. khim. 10
no.5:1258-1259 My '65. (MIRA 18:6)

FEDOROV, I.A.; BALAKAYEVA, T.A.

Oxalatosulfate compounds of scandium. Zhur. neorg. khim. 10 no.9:
2006-2010 3 '65. (MIRA 18:10)

FEDOROV, Igor' Borisovich; OZEROV, V.S., red.; TIKHONOVA, I.M.,
tekhn. red.

[For the good of man] Na blago cheloveka. Leningrad, Len-
izdat, 1964. 57 p. (MIRA 17:1)
(Chemical industries)

FEDOROV, I.D.

Semihot welding of the cracks in piston inserts. Elek. i tepl. tiaga 7
no.11:20 N '63. (MIR 7:2)

1. Starshiy inzh.-tekhnolog depo Kartaly Yuzhno-Ural'skoy dorogi.

FEDOROV, I. F.

AID P - 397

Subject : USSR/Aeronautics
Card 1/1 Pub. 135, 11/18
Author : Fedorov, I., Col.
Title : ~~XXXXXXXXXXXXXXXXXXXX~~ The first air combat
Periodical : Vest. vozd. flota, 8, 55-57, Ag 1954
Abstract : Narration of Nestorov's first air combat and his death
at the beginning of World War I.
Institution : None
Submitted : No date

FEDOROV, I. [-]

AID P - 2205

Subject : USSR/Aerodynamics

Card 1/1 Pub. 135 - 6/18

Authors : Fedorov, I., Col., Hero of the Soviet Union and
~~Vazhin, P.~~, Guards Maj.

Title : Know how to hit air targets at short range

Periodical : Vest. vozd. flota, 6, 34-39, Je 1955

Abstract : The authors discuss the probability of hitting air targets under various conditions of relative velocities of aircraft, targets, and bullets and at various distances.

Institution : None

Submitted : No date

FEDOROV, I. F.

AID P - 4767

Subject : USSR/Aeronautics - bibliography

Card 1/1 Pub. 135 - 25/31

Author : Fedorov, I. F., Col.

Title : On the Pad' Zelenaya airfield

Periodical : Vest. vozd. flota, 8, 82-84, Ag 1956

Abstract : Critical review of the book Na Dal'nev. Vostoke (In the Far East), by Anatoliy Ivanov, Minsk, 1956, 386 p. One photo.

Institution : None

Submitted : No date

FEDOROV, I. I.

AID P - 5555

Subject : USSR/Aeronautics - Armament

Card 1/1 Pub. 58 - 14/20

Author : Fedorov, I.

Title : Rocket weapons carried by the airplanes

Periodical : Kryl. rod., 1, 22-24, Ja 1957

Abstract : A cursory description of a series of rockets of various types in use in the armed forces of Western powers (chiefly American: Mighty Mouse, Sparrow, Firebird, Falcon), and of the different methods of guiding these rockets towards the targets. The article is said to be based on information gathered from foreign publications.

Institution : None

Submitted : No date

FEDOROV, I.F.

"In yesterday's skies" by ([inzh.] K. A. Gil'zin. Reviewed by I.F.
Fedorov. Vest.Vozd.Fl. no.12:79 D '60. (MIRA 14:5)
(Aeronautics)
(Gil'zin, K.A.)

FEDOROV, I.G.

Experimental investigation of heat transfer and resistance of
slotted channels with an unstaggered arrangement of stamped
conic grooves. Trudy KAI no.66:83-90 '61. (MIRA 16:10)

(Heat exchangers--Testing)

17.1202
26.5500

S/147/61/000/004/015/021
E194/E135

AUTHORS: Fedorov, I.G., Shchukin, V.K., Mukhachev, G.A., and
Idiatullin, N.S.

TITLE: Heat transfer and hydraulic resistance of channels
with pressed spherical projections

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Aviatsionnaya tekhnika, no.4, 1961, 120-127

TEXT: Plate type heat exchangers are particularly suitable
for aviation because of their small size and weight. Sheets with
pressed projections are particularly useful because the
projections increase the strength and improve the cooling.
V.G. Fastovskiy and Yu.F. Petrovskiy (Ref.4; Teploenergetika, no.1,
1959) made an experimental study of a heat exchanger in which the
rectangular ducts had spherical projections on the air side and
hollows on the steam side. The work showed that the heat transfer
coefficient of such surfaces was greater by a factor of 2.5-2.8
than for smooth surfaces. The improvement is attributed to
increased turbulence of the flow. The work described here was

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Heat transfer and hydraulic

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carried out on rectangular ducts consisting of two plates with spherical projections. The projections were of various transverse pitch and were located both in honeycomb and straight line order. The main characteristics of the ducts are given in the table. The relationship $Nu = f(Re)$ was investigated in the range of Reynolds numbers 1000 to 16500, and $\xi = f(Re)$ in the range $Re = 500$ to 18000. The experimental rig is described. The water sides of the heat exchangers were filled to one third of their height with distilled water and electric heaters were installed to evaporate the water. The water vapour condensing on cooling surfaces gives up its latent heat of vapourisation to a flow of air passing through the ducts of the heat exchanger. The usual measurement arrangements were made. Each of the four bundles described in the table was investigated under about twenty conditions with different rates of air flow covering the Reynolds number range from 500 to 18000; in each case the measurements were repeated after 15-20 minutes. A procedure was worked out and the operation of the equipment was checked by using a smooth-walled plate-type heat exchanger. Further tests

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Heat transfer and hydraulic ...

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showed that the heat balance error calculated from the input to the internal heater and from the change in enthalpy of the cooling air is about 6-10%. The r.m.s. error of the determination of air flow, and of the Re and Nu numbers and of the resistance coefficient are, respectively, 2.2, 2.5, 4.5 and 5%. Heat transfer results are well represented by the following equations.

With honeycomb arrangement:

$$Nu_f = 0.54 \times 10^{-4} Re_f^{1.55} \quad (Re = 1000-2300), \quad (3)$$

$$Nu_f = 0.95 \times 10^{-3} Re_f^{1.17} \quad (Re = 2300-10000), \quad (4)$$

$$Nu_f = 0.0276 Re_f^{0.8} \quad (Re = 10000-16500). \quad (5)$$

With the In-Line arrangement:

$$Nu_f = 0.44 \times 10^{-4} Re_f^{1.55} \quad (Re = 1000-2300), \quad (6)$$

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$$Nu_f = 0.8 \times 10^{-3} Re_f^{1.17} \quad (Re = 2300-10000), \quad (7)$$

$$Nu_f = 0.0248 Re_f^{0.8} \quad (Re = 10000-16500). \quad (8)$$

The results show that for given values of the Reynolds number the Nu criterion is 15-20% higher in bundles with honeycomb arrangement of projections than those with the in-line arrangement. The Nu criterion of the bundles is greater by a factor of 2.1-1.65 than the Nu criteria for a bundle of flat sheets in the Re number range 2500-16500. These results are not entirely in line with those given in Ref.4, and the reasons for this are discussed. The following expressions adequately represent the results of resistance tests:

$$\xi = \frac{A}{(Re_f^{0.30})} \quad (Re = 500-2300), \quad (9)$$

$$\xi = \frac{B}{Re_f^{0.089}} \quad (Re = 2300-18000). \quad (10)$$

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The values of the coefficients A and B in Eqs (9) and (10) are given in the table. The results show that ducts with spherical projection have higher resistance than do smooth ducts, the actual amount depending upon the pitch and arrangement of the projections. There are 3 figures and 1 table.

ASSOCIATION: Kafedra teplovykh dvigateley, Kazanskiy
aviatsionnyy institut (Department of Heat Engines,
Kazan' Aviation Institute)

SUBMITTED: March 10, 1961

Key to Table Headings: (1) Number of bundle; (2) Arrangement of projections; (3) Shape of duct; (4) Length of bundle, mm; (5) Height of bundle, mm; (6) Equivalent diameter $d_{\text{эк}}$, mm; (7) Transverse pitch S_1 , mm; (8) Longitudinal pitch S_2 , mm; (9) Coefficient A; (10) Coefficient B.

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ACCESSION NR: AT4024398

S/2529/81/000/066/0083/0090

AUTHOR: Fedorov, I. G.

TITLE: The experimental investigation of heat transfer and flow resistance in narrow channels with in-line arranged conical dimples

SOURCE: Kazan. Aviatsonnyy institut. Trudy*, no. 66, 1961. Aviatsonnyy dvigateli (Aircraft engines), 83-90

TOPIC TAGS: heat exchange, heat transfer, flow resistance, conical dimple heat transfer coefficient, hydraulic resistance, temperature, turbulence, flow channel, heat resistance, thermal resistance, air pressure, Reynolds number, Nusselt number

ABSTRACT: In a number of cases the presently used heat exchangers do not satisfy the industrial needs with regard to their compactness, values of heat transfer coefficients, and hydraulic resistance, particularly in the aircraft industry where small frontal area and weight are of primary importance. The demand for compactness is best achieved by ribbed heat transfer surfaces. However, manufacture of ribbed surfaces encounters considerable difficulties; also, the temperature gradient along the height of the ribs causes

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a decrease of heat-transfer efficiency. Of great practical interest are heat exchangers with dimpled surfaces which intensify the heat exchange by turbulence. Besides, the dimples stiffen the flow channels, permitting working conditions with considerable differential pressures across the wall. The use of thin sheet metal (0.5 to 0.8 mm thick) also causes a sharp decrease of thermal resistance of the wall. Investigation by V.M. Antuf'yev, E.I. Vol'per, and V.G. Fastovskiy confirms the high compactness, small weight, and effectiveness of such heat exchange surfaces. An investigation was performed by the author on heat transfer and resistance in narrow, rectangular, cross-section channels made of 0.5 mm sheet metal with conical dimples arranged in line (see Fig. 1 of the Enclosure). Air was used as a heat transport medium and six configurations were investigated. The experimental set-up and test method have been described elsewhere by the author et al. The experiments were conducted at 111°C wall temperature and with air temperature at the channel inlet varying between 16.7 and 24.8 °C. The other parameters had the following values: air outlet temperature 89.1 to 106.8 °C; mean air pressure in channel 1.011 to 1.197 kg/cm²; flow rate 4.72 to 113.6 kg/hr; Reynolds number 987 to 23000; heat load (specific) (0.616 to 14.9) × 10³ kcal/m²-hr°C. The correlation of Nusselt and Reynolds numbers for heat transfer was found

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for the channels, with a 10 % scatter, as follows:

for Re=1000-3000
$$Nu = 0.7341 \times 10^{-3} Re^{1.21};$$

for Re=3000-10000
$$Nu = 2.717 \times 10^{-3} Re^{1.05};$$

for Re=10000-22000
$$Nu = 0.0274 Re^{0.8}.$$

For the last range of Re a more exact expression was suggested: $Nu = C Re^{0.8}$, where C varies from 0.0294 to 0.0251, depending on the configuration. Hydraulic resistance of all channels with in-line arranged dimples was found to be characterized by the following correlations of Euler and Reynolds numbers:

for Re=1000-3000,
$$Eu = \frac{A}{Re^{0.30}};$$

for Re=3000-23000,
$$Eu = \frac{B}{Re^{0.09}}$$

where A and B are empirical coefficients depending on the channel configuration. A varies from 58.66 to 32.64, and B from 11.380 to 6.131. Analysis of the obtained results was conducted with respect to the economic advantage of the channel. At the same

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film coefficient, a heat exchange surface with a smaller hydraulic resistance, and, consequently, requiring a smaller pumping power, was found to be more advantageous economically. Fig. 2 of the Enclosure shows the film coefficients versus the pressure drop for various channel configurations. As a result of the analysis, it was concluded that: (1) at the same transfer surface and other equal conditions, dimpled surfaces exhibit a greater rate of heat transfer than plain surfaces; (2) at equal film coefficients, conical dimples create less hydraulic resistance than spherical dimples; (3) at equal hydraulic resistance, dimples arranged in line permit one to achieve greater film coefficients than at a staggered arrangement; (4) increasing of the transverse pitch in the dimple pattern brings about a greater reduction of the pumping power than a similar increase of the longitudinal pitch. Orig. art. has: 4 figures and 6 formulas.

ASSOCIATION: Aviatsionnyy institut, Kazan (Kazan Aviation Institute)

SUBMITTED: 10 Oct 61

DATE ACQ: 15 Apr 64

ENCL: 03

SUB CODE: AC, MM

NO REF SOV: 004

OTHER: 000

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S/096/62/000/006/009/011
E194/E454

24.5200

AUTHORS: Fedorov, I.G., Engineer, Idiatullin, N.S., Engineer,
Shchukin, V.K., Candidate of Technical Sciences,
Mukhachev, G.A., Candidate of Technical Sciences

TITLE: Heat transfer and hydraulic resistance of slot shaped
ducts with conical indentations in honeycomb arrangement

PERIODICAL: Teploenergetika, no.6, 1962, 57-60

TEXT: Heat transfer and air resistance tests were made on a
plate type heat exchanger with ducts 3 mm wide, 145 mm high and
475 mm long. The ducts were made of 0.5 mm sheet in which had been
pressed indentations in the shape of truncated cones with a base
diameter of 6.5 mm, cone angle of 30° and height of 1.5 mm,
arranged in honeycomb order at various pitches. The tips of the
cones of one plate were in contact with the corresponding tips of
indentations in the opposite plate of the duct. Two such sheets
soldered together at the edges and with fixing flanges attached
formed the test bundles. Electrically heated water supplied heat
to the test bundle and it was removed by a flow of air. The test
arrangements are described. The tests were carried out with a
Card 1/3

Heat transfer and hydraulic ,...

S/096/62/000/006/009/011
E194/E454

constant wall temperature of 110°C with an inlet air temperature of 22 to 23.5°C and a discharge air temperature ranging from 91 to 106°C, the mean air pressure in the duct was 1.01 to 1.23 kg/cm², the air flow 2 to 92 kg/hour and the specific thermal loading (0.18 to 11.6) x 10³ kcal/m² hour. The difference between the heat input to the heaters and the heat gained by the air was 6 to 10%. The methods used to check the equipment are described. For all the investigated ducts the experimental points lie within $\pm 6\%$ of three straight lines of various slopes. The following equation applies for Reynolds numbers $Re = 750$ to 2500

$$Nu_f = 0.155 \times 10^{-3} Re_f^{1.41} \quad (1)$$

for $Re = 2500$ to 10000

$$Nu_f = 1.017 \times 10^{-3} Re_f^{1.17} \quad (2)$$

and for $Re = 10000$ to 18000

$$Nu_f = 0.0315 Re_f^{0.8} \quad (3)$$

Card 2/3

Heat transfer and hydraulic'...

S/096/62/000/006/009/011
E194/E454

For Reynolds numbers of 2000, 4000 and in the range from 10000 to 18000 the Nusselt criterion for ducts with conical indentations is greater than for a smooth duct by 2.0, 1.62 and 1.75 times respectively. The surface increase caused by the indentations ranges from 5 to 10% so the main cause of greater heat exchange with indentations is increased turbulence of flow. The resistance of the ducts was measured under both isothermal and nonisothermal conditions and the results are given in the form of empirical formulae with constants tabulated for ducts of different shape and pitch. There are 3 figures and 1 table.

ASSOCIATION: Kazanskiy aviatsionnyy institut
(Kazan' Aviation Institute)

Card 3/3

FEDOROV, I. G.

FEDOROV, I.G., inzhener; MEYEVIN, Ye.A., inzhener, nauchnyy redaktor;
TOKER, A.M., tekhnicheskiiy redaktor.

[Making reinforced concrete steps in stock metal forms; from the work practice of the "Makstroil" trust. Izgotovlenie zhelezobetonnykh stupeney v inventarnoi metallicheskoj opalubke; iz opyta raboty tresta Makstroil. Moskva [Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture] 1953. 11 p. (MLRA 7:8)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva.
Tekhnicheskoye upravleniye.
(Reinforced concrete construction)

FEDOROV, I.G.; KARDO-SYSOYEV, F.N., inzhener, nauchnyy redakter.

[New woodworking machines; proposals by instructors on progressive work methods] *Nevye derevooörabatyvalushchie stanki; predlozhenia instruktorov peredovykh metodov truda. Moskva, Gos. izd-vo po stroitel'stvu i arkhitekture, 1953. 22 p.* (MLRA 7:6)
(Woodworking machinery)

^G
FEDOROV, I. I., inzhener.

Moscow exhibition of new construction techniques. Mekh.trud.rab. 7 no.8:
42-45 Ag '53. (MLRA 6:8)

(Building machinery)

FEDOROV, I.G.

Introduction of advanced methods in plastering. *Bul.stroi.tekh.* 10 no.10:
20-22 My '53. (MLBA 6:8)

1. TsBTP Ministerstvo stroitel'stva.

(Plastering)

FEDOROV, I.G., inzhener.

Method of producing reinforced concrete steps in stages. Sbor.nat. o nov.
tekh. v stroi. 15 no.6:26-29 '53. (MLRA 6:5)
(Staircases) (Reinforced concrete construction)

FEDOROV, I.G., inzhener.

Practical arrangement of concrete reinforcements. Sbor.mat.o nov.
tekh.v stroi. 15 no.10:12-17 '53. (MLBA 6:12)

(Reinforced concrete)

FEDOROV, I. G.

AID P - 220

Subject : USSR/Engineering
Card : 1/1
Author : Fedorov, I. G., Engineer
Title : Standard Formwork for Concrete Construction Designed
by N. I. Gakhov
Periodical : Sbor. mat. o nov. tekhn. v stroit., 1, 12-18, 1954
Abstract : Standard size forms for concrete are suggested. These
standard board units form shutterings which can be
used in various formwork for concrete placing. These
forms have been tried by many construction trusts and
have proved economical. Charts, table.
Institutions: Several Building Trusts
Submitted : No date

FEDOROV, I.G., inzhener.

Exhibition of modern building engineering. Mekh.trud.rab. 8 no.6:
43-45 Ag-S '54. (MLRA 7:9)
(Moscow--Building machinery--Exhibitions) (Building machinery--
Exhibitions--Moscow)

FEDOROV, I.G., inzhener

The Moscow Exhibition of New Construction Technology. Mekh.trud.
rab.9 no.8:30-33 Ag'55. (MLRA 8:10)
(Moscow--Construction industry--Exhibitions)

FEDOROV, I.G., inzhener.

An exhibition of new construction technology. Mekh. trud. rab.
10 no.9:20-24 S '56. (MLRA 9:10)

(Moscow--Construction industry--Exhibitions)

FEDOROV, I. G.

FEDOROV, I. G.

New building techniques; at the Moscow Exhibition of 1957.
Stroitel' no.9:22-24 S '57. (MIRA 10:12)
(Moscow--Building--Exhibitions)

FEDOROV I. I.

Author: Fedorov, I. I.

Title: Navigational "Ekholots", Sea Transportation. (Navigatsionnye ekholoty.) 142 p.

City: Moscow

Publisher:

~~Publication--~~

Date: 1948

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 3, No. 2, Page 97

FEDOROV, I.I.

Results of the second congress of the trade union of geological
prospecting workers and problems of trade-union organizations.
Rasved.1 okhr.nedr 22 no.5:1-5 My '56. (MLRA 9:9)

1. TSentral'nyy komiter profsoyusa rabochikh geologo-
razvedochnykh rabot.
(Trade unions) (Prospecting)

FEDOROV, I.I.

Activity of the editorial board of "Razvedka i okhrana nedr".
Razved. i okh.nedr 24 no.10:61-62 0 '58. (MIRA 12:2)

1. TSentral'nyy komitet profsoyusa rabochikh geologorazvedochnykh
rabot.
(Geology--Periodicals)

FEDOROV, Ivan Ignat'yevich

[Studies on Chinese popular medicine] Ocherki po narodnoi
kitaiskoi meditsine. Moskva, Medgiz, 1960. 76 p.
(CHINA--MEDICINE, POPULAR) (MIRA 13:9)

| PRINCIPLES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
| TEST AND TWO CRITERIA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Oxidation-reduction processes during muscular labor. Change of the oxidation-reduction potential of Ringer solution on passage through an isolated working heart. A. Ju Kharit and I. I. Fedorov. <i>Compt. rend. acad. sci. U. R. S. S. (N. S.)</i>, 1, 18-71 (in German 71-3) (1934). A Ringer or a Ringer-Locke soln. after passage through the heart of <i>Rana</i> shows a reduction of potential against a smooth Pt electrode of 20-61 mv. while the pH remained const. A 0.0002M KCN soln. addn. reverses the oxidation process and the potential decreases by about 20 mv. Addn. of CO at first increases the potential and then decreases it below normal. F. H. Rathmann</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ASR-5LA METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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HF

Oxidation-reduction processes during muscular work.

II. Oxidation-reduction potential of blood and urine as influenced by muscular labor. A. Yu. Kharit and I. I. Fedorov. *Compt. rend. Acad. Sci. U. R. S. S. [N.S.]*, 1, 130-2 (in German 133-6) (1934); cf. C. A. 28, 9403^a. - The potential of arterial blood decreased from 0.007 to 0.578 v., of venal blood from 0.580 to 0.607 after work (in dogs), and of urine from 0.118 to 0.073 in 40 min. and was normal after 4 hrs. (in man). P. H. R.

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

| | |
|---|--|
| <p>Carbohydrate metabolism in narcosis. <u>I. J. Eskola</u> <i>Bull. Biol. Med. Exptl. U. R. S. S. 9, 368-71(1940)</i> (in German).—The administration per os of 2 g./kg. body wt. of glucose in 10% soln. to rabbits, and the intravenous injection into dogs and cats, during Et₂O narcosis causes a strong hyperglycemia until the narcosis terminates, after which the blood-sugar values return to normal. In cases of high blood-sugar values during the 1st hr. of narcosis the difference in sugar values between arterial and venous blood decreases and eventually becomes neg., venous blood sugar being higher than arterial sugar. Blood lactic acid increases during narcosis either with or without sugar administration. The intravenous injection of 6 units/kg. body wt. of insulin into dogs and rabbits during Et₂O narcosis caused no decrease in blood sugar until the narcosis terminated. The injection of adrenaline during narcosis caused a greater hyperglycemia than under normal conditions. The lactic acid values were similar to those found after sugar administration in narcosis. S. A. Karjala</p> | |
| <p>ASA-SLA METEOROLOGICAL LITERATURE CLASSIFICATION</p> | |

| 1ST AND 2ND COPIES | | | | | | | | | | 3RD AND 4TH COPIES | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| PROCESSING AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> ca 116 </div> <p>Carbohydrate metabolism in experimental epilepsy. I. J. Fedorov. <i>Bull. bul. med. exp. U. R. S. S. 8, 372-8</i> (1940) (in German).—The exper. development of epilepsy in dogs, rats and cats by subarachnoidal injection of 0.2 ml. of 2% gallic acid, by intraperitoneal injection of 8-10 ml. of 2% oil of camphor, or by means of an elec. current, causes a hyperglycemia which reaches a max. in 1-5 hrs., falls to normal in approx. 25 hrs. and then gives rise to a marked hypoglycemia. The source of the hyperglycemia was found to be the rapid mobilization and breakdown of glycogen by the liver. A marked increase in blood lactic acid occurs during epilepsy which remains considerably above normal for over 25 hrs. S. A. Karjala</p> | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div> <p>ASS-5LA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>10000 10000 10000 10000 10000 10000 10000 10000 10000 10000</p> </div> <div> <p>10000 10000 10000 10000 10000 10000 10000 10000 10000 10000</p> </div> </div> | | | | | | | | | | | | | | | | | | | |

[illegible]

FEDOROV, I. I.

USSR/Medicine - Blood, Fats and Lipoids
Medicine - Urine, Fats and Lipoids

May/Jun 48

"Variations in the Fatty Exchange in Men at High Altitudes," G. Ye. Vladimirov,
I. M. Dedyulin, L. I. Ostrogorskaya, I. I. Fedorov, Biochem Dept, General Physiol
Sec, Inst of Experimental Med, Acad Med Sci USSR, Leningrad, 8 pp

"Fiziol Zhur SSSR" Vol XXXIV, No 3

Reviews history of subject. Describes observations. Concludes that at high altitudes the acetone content in the blood and urine is increased. The β - oxybutyric acid content in the blood also increases with an increase in altitude. Total content of fats in blood plasma remains unaltered. Discussed effects of acclimatization.

PA 13/49157

FEDOROV, I. I.

33458. Ob okhranitel'nom Vozbuzhdenii. Uchen. Zapiski (Chernovits. Gos. Med. In-t), T. 1, 1949, c. 5-23.

SO. Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

FEDOROV, I. I.

Fedorov, I. I. "On the reactivity of adrenalin with foreign blood", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 247-49.

SO: U-4392, 19 August 53, (Istoria 'Zhurnal 'nykh Statey, No 21, 1949).

FEDOROV, I. I.

1797. **The Reflexogenic Zone in the Terminal Portion of the Abdominal Aorta.** (О рефлексогенной зоне области деления брюшной аорты)
I. I. FEDOROV. Архив Патологии [Arch. Patol.] 12, No. 1, 15-22, 1950. 4 figs., 16 refs.

The abdominal aorta of dogs was studied by means of compression and occlusion of its various segments and terminal branches and the introduction into it of such chemical substances as hypertonic saline, adrenaline, acetylcholine, "hexonal", thiopentone, procaine, and barium chloride. The effects of these procedures on the pulse, blood pressure, and electrocardiographic tracings of the heart were observed. A histological study of this region showed that nerve endings were much more numerous in the terminal portion of the aorta than above or below it, and that they were similar in structure to those present in the sinocarotid zone. The observations showed that this part of the aorta contains chemical neuro-receptors.

L. Crome

Abstracts of World Medicine
Vol 8 1950

FEDOROV, I. I.

"Pathophysiological Bases of Blood Transfusion," Kiev, 1951

DETSIK, Yu.I.; FEDOROV, I.I.

Effective stimulation of the arterial receptors with simultaneous intravenous administration of drugs lowering blood pressure and depressing respiration. Vop. fiziol. no.5:38-42 '53. (MLRA 8:1)

1. L'vovskiy meditsinskiy institut, kafedra patologicheskoy fiziologii.

(ARTERIES, physiology,

eff. of stimulation of receptors with simultaneous intravenous admin. of drugs depressing blood pressure & resp.)

(VEINS, physiology,

eff. of intravenous admin. of drugs depressing blood pressure & resp. with simultaneous stimulation of arterial receptors)

(BLOOD PRESSURE,

eff. of stimulation of arterial receptors with simultaneous intravenous admin. of drugs depressing blood pressure & resp.)

(RESPIRATION,

eff. of stimulation of arterial receptors with simultaneous intravenous admin. of drugs depressing blood pressure & resp.)

PETROV, D.G., dotsent, direktor; FEDOROV, I.I., professor, nauchnyy rukovoditel'.

Intravenous alcohol-thiopental narcosis. Khirurgia no.6:15-18 Je '53.
(MLRA 6:8)

1. L'vovskiy nauchno-issledovatel'skiy institut perelivaniya krovi i ne-
otlozhnoy khirurgii. (Anesthesia)

FEDOROV, I. I.

4817. FEDOROV, I. I. Ucheniye I. P. pavlova - nauchnaya osnova meditsiny. kiyev, gosmedizdat ussr, 1954. 104 s. 21sm. (b-ka vracha). 5.000 ekz. 4r. 35k. v per. - na ukr. yaz. - (54-58287) 612+61

SO: Knizhnaya Letopis', Vol. 1, 1955

FEDOROV, I.I.

FEDOROV, I.I.: "The process of ossification of the pelvis in X-ray pictures".
Moscow, 1955. Second Moscow Medical Inst imeni I.V. Stalin. (Dissertations
for the degree of candidate of Medical Sciences).

SO: Knizhnaya letopis' No 44, 29 October 1955. Moscow.

FEDOROV, I. I.

USSR/ Medicine - Physiology

Card 1/1 Pub. 22 - 51/52

Authors : Fedorov, I. I.; Khodosevich, P. K.; Fedorova, Z. P.; and Gosteva, E. A.

Title : Distribution of radioactive P and I in the organs of rabbits in normal state, pentotal narcosis and in state of strong stimulation

Periodical : Dok. AN SSSR, 100/2, 393-396, Jan 11, 1955

Abstract : Experimental data are presented regarding the change in functional state of the nervous system on the distribution of radioactive P and I in the organs of underfed rabbits. Results obtained led to a conclusion that any change in the functional state of the central nervous system positively affects the intensity of the organs in the absorption of the radioactive P and I. Seven USSR references (1947-1953). Table.

Institution : Scientific Research Institute of Blood Transfusion, Lvov

Presented by : Academician L. A. Orbeli, September 24, 1954

FEDOROV, Ivan Ignat'evich, professor; BOGOMOLETS, O.A., redaktor;
GITSHTEYN, A.D., tekhnicheskii redaktor

[Alcohol-glucose-citrate blood and its medical use] Spirto-gliukozo-
tsitratnaya krov' i ee lechennoe primeneniye. Kiev, Gos. med. izd-vo
USSR, 1956. 149 p. (MIRA 10:4)

(BLOOD--COLLECTION AND PRESERVATION)

(BLOOD--TRANSFUSION)

USSR/Pharmacology and Toxicology. Analgesics

V-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 47150

Author : Detsik Yu.I., Fedorov I.I.

Inst : -

Title : On the Epileptogenic Effect of Pyramidon

Orig Pub : Fiziol. zh. 1957, 3, No 3, 31-35

Abstract : The effect of large doses of pyramidon (P) was studied on guinea pigs, rabbits, cats, and dogs, by intravenous and intracysternal administration of a 4% aqueous solution of P. Duration of administration was 3-5 sec. In guinea pigs, the intravenous epileptogenic dose of P was 65-80 mg/kg.; in dogs, cats and rabbits it was 50-60 mg/kg.; and in intracysternal introduction it was 8 mg/kg. After administration of P in the indicated doses, an attack of tonoclonic convulsions developed immediately. 2-4 hours after epileptic attack, no essential disorders of the general condition were observed in the animals. -- G.N. Artyemenko

Card : 1/1

USSR / Human and Animal Physiology (Normal and Pathological). Nervous System. Epilepsy T

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 97878

Author : Fedorov, I. I., Zapadniuk, V. G.

Inst : Not given

Title : The Significance of Neuroreflectory Components in the Mechanism of Appearance of Experimental Convulsive Attacks

Orig Pub: Fiziol. zh., 1957, 3, No 5, 119-123

Abstract: It was established in experiments on 8 dogs that a perfusion of humorally isolated carotid sinus uni- or bilaterally with a 4 percent solution of pyramidon (P) does not produce convulsive attacks, despite the fact that acceleration of breathing,

Card 1/2

87

*Ussor Med. Inst.
Chair Pathol. Physiol.*

FEDOROV, I.I.; TKACH, Ye.A.; FEDOROVA, Z.P.

Radioactive phosphorus content of the blood and its elimination through the kidneys under normal conditions and during pentothal narcosis. Vrach.delo no.8:813 Ag '57. (MLRA 10:8)

1. L'vovskiy institut perelivaniya krovi
(PHOSPHORUS--ISOTOPES) (THIOPENTAL)

USSR / General Problems of Pathology. Shock.

U-4

Abs Jour : Ref Zhur - Biol., No. 10, 1958, No. 46754

Author : Wu I-Ting, Wang Hung-hsiu, Fedorov, I. I., Fang Chang-chyun

Inst : Not given

Title : Intraarterial Injections of Sodium Lactate as a Method of Increasing Blood Pressure in Traumatic Shock.

Orig Pub : Arkhiv patologii, 1957, 19, No. 8, 32-37.

Abstract : Shock was produced in dogs by stricking them 420-780 times on the hip. Ten to 15 minutes after a stable decrease of blood pressure (BP) to 60-50 mm of the mercurial column, 1 ml/kg of a freshly prepared 4-20 percent solution of neutrally reacting sodium lactate (I) was injected inter-arterially. BP was immediately restored and it even exceeded the initial level. Although subsequently it decreased again, it still remained higher than at the

Card 1/2

Chair Pathophysiology Peking Med Inst

USSR / General Problems of Pathology. Shock.

U-4

Abs Jour : Ref Zhur - Biol., No. 10, 1958, No 46754

Abstract : instance of shock. The speed of the blood circulation fell during shock and remained low even after the injection of (I). The constriction reflex of carotid arteries became restored after (I) was administered. Thus, (I) has only a temporary hypertension effect. Since no complex treatment of shock was instituted, all dogs died after a period of several hours to 3 days.

Card 2/2

FEDOROV, I. I.

FEDOROV, I. I.; POLOTAY, V. A. (L'vov)

Appearance and disappearance of trophic ulcers following section of the sciatic nerve [with summary in English]. Arkh.pat. 19 no.9:74-78 '57. (MIRA 10:12)

1. Iz kafedry gistologii Chernovitskogo meditsinskogo instituta.
(ULCER, experimental,
trophic after section of sciatic nerve, appearance &
disappearance (Rus))
(NERVES, SCIATIC, physiology,
section causing trophic ulcer, appearance &
disappearance (Rus))

FEDOROV, Ivan Ignat'yevich [Fedorov, I.H.], prof., doktor med. nauk; ARUTYUNOV,
O.I., doktor med. nauk, red.; LAZORENKO, M.F., red. vid-va.

[Popular medicine in China] Narodna medytsyna Kytaiu. Kyiv, 1958.
35 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh
znan' Ukrain's'koi RSR. Ser.5, no.6). (MIRA 11:7)
(China--Medicine, Popular)

FEDOROV, I.I., prof. (L'vov)

"The tumorous process and the nervous system" by R.E.Kavetskii
and others. Reviewed by I.I.Fedorov. Vrach.delo no.3:313-
315 Hr '59. (MIRA 12:6)
(CANCER) (NERVOUS SYSTEM) (KAVETSKII, R.E.)

FEDOROV, I.I., kand. med. nauk.

Clinico-roentgenological diagnosis of broncho-pulmonary cysts. Sov.
med. 23 no.3:73-77 Mr '59. (MIRA 12:4)

1. Iz kafedry rentgenoradiologii (zav. - prof. V. A. D'yachenko) II
Moskovskogo meditsinskogo instituta imeni N.I. Pirogova i kafedry rentgeno-
radiologii (ispolnyayushchiy obyazannosti zav. kafedroy - kand. med.
nauk I.I. Fedorov) I Moskovskogo ordena Lenina meditsinskogo instituta
imeni I.M. Sechenova.

(LUNGS, cysts.
broncho-pulm., diag. (Rus))
(BRONCHI, cysts,
same)

FEDOROV, I.I., kand.med.nauk; FEDOROVA, A.S., kand.med.nauk

Clinical and roentgenological diagnosis of gastric burns. Sov.med.
23 no.8:26-31 Ag '59. (MIRA 12:12)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. V.A. D'yachenko)
II Moskovskogo meditsinskogo instituta i terapevticheskogo otdeleniya
TSentral'nogo instituta kurortologii (dir. G.N. Pospelova).
(CAUSTICS off., inj.)
(STOMACH diseases)
(ESOPHAGUS diseases)

FEDOROV, I.I., kand.med.nauk (Moskva, G-285, 1 Mosfil'movskiy per., d.5,
korp.4, kv.47)

Roentgenological diagnosis of deep lipomas of the soft tissues.
Vest.rent.i rad. 34 no.2:22-25 Mr-Ap '59. (MIRA 13:4)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. V.A. D'ya-
chenko) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(LIPOMA, diag.

x-ray of deep & soft tissue lipomas (Rus))

FEDOROV, I.I.

On X-ray diagnosis of calcified aneurysms of the cerebral vessels.
Vest.rent. 1 rad. 34 no.4:89-90 J1-Ag '59. (MIRA 12:12)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. V.A. D'yachenko)
II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(CEREBRAL ANEURYSM radiography)

SHI I-MIN [Shih I-ming] (Pekin); FEDOROV, I.I. (L'vov)

Changes in the blood circulation following closed trauma of the brain in combination with hemorrhage or trauma. Pat. fiziol. i eksp. terap. 4 no. 5:34-39 8-0 '60. (MIRA 13:12)

1. Iz kafedry patologicheskoy fiziologii (zav. Li Syu-tin) Pekinskogo meditsinskogo instituta i kafedry patologicheskoy fiziologii (zav. - prof. I.I. Fedorov) L'vovskogo meditsinskogo instituta.

(BRAIN--WOUNDS AND INJURIES) (HEMORRHAGE) (BLOOD CIRCULATION)

FEDOROV, Ivan Ignat'yevich[Fedorov, I.H.], prof.; VORONOV, Yu.Yu., prof.;
GAVRILOV, V.M. [Havrylov, V.M.], red.; MATVIICHUK, O.A., tekhn.
red.

[Revivification of the body; scientific methods of dealing with premature death] Ozhyvlennia organizmu; naukovi metody borot'by z peredchasnoiu smertiu. Kyiv, 1961. 39 p. (Tovarystvo dlia poshyrennia politychrykh i naukovykh znan' Ukrain's'koi RSR. Ser.6, no.16)

(MIRA 14:11)

(DEATH, APPARENT) (REGENERATION (BIOLOGY)) (LONGEVITY)

GORDIYENKO, Andrey Nikandrovich, prof.; FEDOROV, I.I., red.; BYKOV,
N.M., tekhn. red.

[Mechanisms of allergic reactions] Mekhanizmy allergicheskikh
reaktsii. Kiev, Gosmedizdat, USSR 1961. 263 p.
(ALLERGY) (MIRA 15:6)

GOREV, N.N., otv. red.; GUREVICH, M.I., red.; KONDRATOVICH, M.A., red.;
KOCHERGA, D.A., red.; MAKARCHENKO, A.F., red.; FOL'BORT, G.V.,
[deceased], red.; FROL'KIS, V.V., red. FEDOROV, I.I., red.;
GITSHEYN, A.D., tekhn. red.

[Problems in the physiology and pathology of the vascular tonus]
Voprosy fiziologii i patologii sosudistogo tonusa. Kiev, Gos. med.
izd-vo USSR, 1961. 274 p. (MIRA 15:2)
(HYPERTENSION) (BLOOD VESSELS) (REFLEXES)

FEDOROV, T.I., prof.; VAKAR, A.A., dotsent

Transfusion of a concentrated erythrocytic mass and an erythrocytic
suspension in a blood substitute base. Vrach. delo no. 1:72-75
'61. (MIRA 14:4)

1. Kiyevskiy institut perelivaniya krovi i neotlozhnoy khirurgii.
(BLOOD—TRANSFUSION) (ERYTHROCYTES)

FEDOROV, I.I.; CHERNOGOROVA, Z.L. [Chorohorova, Z.L.]

Effect of sodium lactate solutions on intestinal motility.
Fiziol. zhur. [Ukr.] 7 no.6:811-815 N-D '61. (MIRA 15:3)

1. Patofiziologicheskaya laboratoriya Kiyevskogo nauchno-
issledovatel'skogo instituta perelivaniya krovi i neotlozhnoy
khirurgii.

(SODIUM LACTATE)
(GASTROINTESTINAL MOTILITY)

PETROV, Dmitriy Georgiyevich, dots.; FEDOROV, I.I., red.; NARINSKAYA,
A.L., tekhn. red.

[Preservation and transfusion of blood] Konservirovanie i pe-
relivanie krovi. Kiev, Gosmedizdat USSR, 1963. 221 p.
(MIRA 16:12)

(BLOOD—COLLECTION AND PRESERVATION)
(BLOOD—TRANSFUSION)

PROL'KIS, Vladimir Veniaminovich, doktor med. nauk; KUL'CHITSKIY, Konstantin Ivanovich, dots.; MIL'KO, Vasilii Ivanovich, dots.; KUZ'MINSKAYA, Undina Anatol'yevna, kand. med. nauk; FEDOROV, I.I., red.; RAYZ, A.L., tekhn. red.; CHUCHUPAK, V.D., tekhn. red.

[Coronary blood circulation and experimental myocardial infarct] Koronarnoe krovoobrashchenie i eksperimental'nyi infarkt miokarda. Kiev, Gosmedizdat USSR, 1962. 254 p. (MIRA 16:11)

(HEART---INFARCTION) (CORONARY VESSELS)

ZAPADNYUK, Ignat'y Pavlovich, prof.; ZAPADNYIK, Vitaliy Ignat'yevich,
kand. med. nauk; ZAKHARIYA, Yekaterina Andreyevna, , kand.
med. nauk; FEDOROV, I.I., prof., doktor med. nauk, red.;
ZAPOL'SKAYA, A.A., tekhn. red.

[Laboratory animals, their breeding, keeping, and use in
experiments] Laboratornye zhivotnye, ikh razvedenie, soder-
zhanie i ispol'zovanie v eksperimente; s predislaviem i pod
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(MIRA 16:7)

(LABORATORY ANIMALS)

FEDOROV, Ivan Ignat'yevich, prof.; SIROTIN, N.N., prof., retsenzent;
GLUZMAN, F.A., red.; GITSHTEYN, A.D., tekhn. red.; CHUCHUPAK,
V.D., tekhn. red.

[Principles of pathological physiology] Osnovy patologicheskoi
fiziologii. Kiev, Gosmedizdat, USSR, 1962. 385 p.

(MIRA 15:6)

1. Akademiya meditsinskikh nauk SSSR (for Sirotin).
(PHYSIOLOGY, PATHOLOGICAL)

ISHCHENKO, I.N., zasl. deyatel' nauki prof., red.; FEDOROVSKIY, A.A.,
zasl. deyatel' nauki prof., red.; PETROV, D.G., dots., red.;
FEDOROV, I.I., prof., red.; YANOVSKIY, D.N., prof., red.;
CHUCHUPAK, V.D., tekhn. red.

[Transactions of the Sixth Enlarged Plenum of the Board of
the Scientific Society of Surgeons of the Ukrainian S.S.R.
and the 11th Republic Conference on Blood Transfusion] Tru-
dy Rasshirennogo plenuma pravleniya Nauchnogo obshchestva
khirurgov USSR i XI Respublikanskoi konferentsii po pereli-
vaniyu krovi. Kiev, Gosmedizdat USSR, 1963. 392 p.

(MIRA 16:10)

1. Rasshirennyy plenum pravleniya Nauchnogo obshchestva
khirurgov USSR i XI Respublikanskoy konferentsii po pereli-
vaniyu krovi. 6th, Lvov, 1959. 2. Chlen-korrespondent AN
Ukr.SSR (for Ishchenko).

(HEMATOLOGY—CONGRESSES) (BLOOD—TRANSFUSION)

FEDOROV, I.I.

Age characteristics of the pelvic bones. Sud.-med. ekspert.
6 no.4:18-25 O-D'63 (MIRA 16:12)

1. Kafedra rentgenologii i meditsinskey radiologii (zav.
I.I.Fedorov) Chernovitskogo meditsinskogo instituta.

FEDOROV, I.I.; BEZUGLOV, V.P.; ZAKHARIYA, Ye.A. (L'vov)

Blood supply to the brain during experimental convulsions.
Pat. fiziol. i eksp. terap. 7 no.2:30-34 Mr-Ap'63.

(MIRA 16:10)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. I.I. Fedorov, L'vovskogo meditsinskogo instituta (dir. - prof. L.N.Kuzmenko).

(AMINOPYRINE—PHYSIOLOGICAL EFFECT) (CONVULSIONS)
(BRAIN—BLOOD SUPPLY)

ACCESSION NR: AP3010673

S/0241/63/008/010/0048/0050

AUTHOR: Fedorov, I. I. (Docent, Chief of Dept. of Roentgenology and Radiology); Ushkov, N. P.

TITLE: Radiation bone injuries at later dates after roentgen therapy

SOURCE: Meditsinskaya radiologiya, v. 8, no. 10, 1963, 48-50

TOPIC TAGS: radiation therapy, radiation bone injury, roentgen therapy, later date bone injury, hip bone, pubic bone, bone tissue damage

ABSTRACT: Two cases of female patients treated with roentgen therapy and who suffered bone injuries at later dates are described. In the first case the patient, 54 yrs old, was X-irradiated for first stage carcinoma of the uterine body. A year later a compression fracture of the left femur collar was discovered. Five years later the patient had a fractured right anterior pelvic semi-ring and then after four more years had a subtrochanterial fracture of the right femur. In the second case the patient, 47 yrs old, was treated with combined radiation therapy for second stage carcinoma of the cervix.

Card 1/2

ACCESSION NR: AP3010673

She received 3 additional treatments during the following 3 yrs. Four years later the patient was hospitalized for an oblique fracture of the right pubic bone, a year later a pathological fracture of the right ischium was discovered, and in 2 more years the patient died. In both cases radiation damage of the skin and other organs was observed in addition to the bone injuries. Other studies in the literature confirm these data. The authors recommend that after roentgen therapy any pains in the pelvis or hip should be carefully checked. Orig. art. has: 1 figure.

ASSOCIATION: Kafedra rentgenologii i meditsinskoy radiologii.
Chernovitskogo meditsinskogo instituta (Dept. of Roentgenology and Radiology of the Chernovitskiy Medical Institute)

SUBMITTED: 01Feb63

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Card 2/2

FEDOROV, I.I. USEKOV, N.P.

Congenital defects in the development in the bones of the forearm.
Vest. rent. i rad. 39 no.4:75-76 JI-Ag '64. (MIRA 18:7)

1. Kafedra rentgenologii i meditsinskoy radiologii (zav. - dotsent
I.I.Fedorov) Chernovitskogo meditsinskogo instituta.

FEDOROV, I.I.; KUTUYEV, A.F.

Case of pulmonary adenomatosis. Vest. rent. 1 rad. 40 no.3:
56-57 My-Je '65. (MIRA 18:7)

1. Kafedra rentgenologii i meditsinskoy radiologii (zav. -
dotsent I.I. Fedorov) Chernovitskogo meditsinskogo instituta.

FEDOROV I.I., prof.; FEDOROVSKIY, A.A., prof., zasluzhennyy deyatel' nauki

Foreword. Trudy Kiev. nauch.-issl. inst. perel. krovi i neotlozh.
khir. 3:3 '61. (MIRA 17:10)

1. Direktor Kiyevskogo instituta perelivaniya krovi (for Fedorov).
2. Glavnyy gematolog Ministerstva zdavookhraneniya Ukrainskoy SSR
(for Fedorovskiy).